DOCUMENT RESUME

ED 143 880 08 CE 012 661

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TITLE Alternatives to Contemporary Exploratory Programs. Final Report.
INSTITUTION Virginia Polytechnic Inst. and State Univ., Blacksburg.
SPONS AGENCY Bureau of Occupational and Adult Education (DHEW/OE), Washington, D.C.
PUB DATE Mar 77
NOTE 33p.

EDRS PRICE MF-$0.83 HC-$2.06 Plus Postage.
DESCRIPTORS Career Education; *Career Exploration; Demonstration Projects; Educational Practice; Intermediate Grades; Junior High Schools; Middle Schools; National Surveys; *Policy Formation; Program Development; Program Effectiveness; Program Evaluation; *Program Planning; Staff Role; State Departments of Education; State Programs; State Surveys; *Statewide Planning; Statistical Data; *Vocational Education
IDENTIFIERS *Virginia

ABSTRACT

The goal of a project was to survey the vocational divisions of state departments of education across the nation in order to provide the vocational division of Virginia with information upon which to base decisions concerning the development of its vocational exploratory program. A search of the literature was done and an ERIC search completed. Using Project Baseline, "sister" states were identified. All states were contacted and several were visited to uncover such information. Based upon those states actively involved in developing a continuum of occupational education from orientation through postsecondary vocational education, recommendations were that (1) a policy/philosophy statement be generated; (2) a staff function/position bear responsibility for the exploratory program; (3) the exploratory program be developed in phases; (4) eventually, a fundable, exploratory package be developed, articulated to "Careers and You" as well as to preparatory vocational courses; and (5) that an evaluation plan be put into effect to measure progress and results of the orientation and exploratory program. Ten pages of comparative tables and charts are appended, as well as sample telephone forms used in requesting information from state supervisors, service area directors, and state accreditation officers. (Author/BL)

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ED143880

FINAL REPORT

EXEMPLARY PROJECT
IN
VOCATIONAL EDUCATION

Submitted to the U.S. Commission of Education
Under the Provision of Section 142(d) of Part D
of the Vocational Education Amendment of 1968

Project Title: ALTERNATIVES TO CONTEMPORARY EXPLORATORY PROGRAMS

Applicant Organization: Virginia Polytechnic Institute
and State University
Blacksburg, Virginia

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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Submitted by: Ralph Ressler

Funds requested: $7,825.00

Duration: September 1, 1976 - March 1, 1977

Time span: Six months

Date Submitted: March 10, 1977

CE 012 681

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ABSTRACT

Final Report for Exemplary Project
in
Vocational Education

Ralph Ressler

Virginia Polytechnic Institute
and
State University

Four month project

$7,825.00

The goal of this project was to survey the Vocational Divisions of State Departments of Education across the nation in order to provide the Vocational Division of Virginia with information upon which to base decisions concerning the development of its vocational exploratory program.

A search of the literature was done and an ERIC search completed. Using Project Baseline "sister" states were identified. All states were contacted, several visited to uncover such information. Based upon those states actively involved in developing a continuum of occupational education from orientation through post secondary vocational education, recommendations were that 1) a policy/philosophy statement be generated, 2) a staff function/position bear responsibility for the exploratory program, 3) the exploratory program be developed in phases, 4) eventually, a fundable, exploratory package be developed, articulated to Careers and You as well as to preparatory vocational courses, and 5) that an evaluation plan be put into effect to measure progress and results of the orientation and exploratory program.

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Alternatives to Contemporary Exploratory Programs

PROBLEM

Exploratory courses are an accepted part of the middle school curriculum. Of primary importance is the role they play in the occupational guidance of youth. Such courses have grown in importance and in number until the need now exists to refocus upon their purpose and especially upon the most desirable scope and sequence of these experiences. Goode defines an exploratory course as one which,

> ". . . . affords students first-hand contacts and experiences in a variety of subject fields or occupational situations; designed to open up new vistas and stimulate new activities, in order to discover the interests and capacities of students and to contribute to their guidance in vocational selection or plans for further education."

Recent legislation has encouraged vocational education to enter the exploratory level, however, such a step must be well planned lest competition develop between service areas to the detriment of all and overlapping and redundant courses cause an economic drain upon the resources of the division. There is no evidence of the effectiveness of alternate patterns of vocational exploratory programs.

BACKGROUND

During the past five years several significant events have occurred

which have brought to a head a concern by educational leaders in Virginia for a more orderly, yet flexible, framework for the design and selection of exploratory courses.

Occupational Orientation

The standards of quality, while addressing the broad concerns of education in Virginia, have led to the development of an "across-the-board," pre-exploratory vocational orientation course. This course, which may be a 90 or 180 day experience at the 6th or 7th grade, introduces students to work environments which may be experienced in the exploratory courses which follow - as well as in other settings (i.e. clubs.) Related learnings associated with career preparation and career selection in general are taught in "Careers and You." A simulation-based course predicated on self-awareness built during their elementary experience, the course in short seeks to relate 'self' to work style. It will be available to the schools of Virginia in September, 1977. Exploratory courses do not reflect the conceptual framework of Careers and You but should be articulated with it.

State Policy

At the same time developmental work was underway for this course, the State of Virginia was removing any control it had to approve new exploratory courses. Up until 1974, these courses had to receive approval related to accreditation standards before being offered in local junior high schools. The requirement was eliminated that year. At the present time only approval at the local level is needed. This has led to a dramatic increase in the number of exploratory courses taught throughout the state.

Career Education

Much of the impetus behind this dramatic increase in the number of exploratory courses available to local schools has come from the recent advent of Career Education. While exploratory courses had always had an occupational connotation, witness Goode's definition noted earlier, they took on added importance in the Career Education schema. "Career Exploration" as a phase of career education was proffered as being synonymous with grades seven through nine and a time when students could explore various career options. This is in keeping with career development theory.

OBJECTIVES

The objectives of this exemplary project were to: 1) Complete a status study of exploratory programs and alternative or exemplary programs administered by vocational divisions in each of the continental United States, 2) to present data and information concerning the findings to the vocational division, and 3) offer suggestions and recommendations for the consideration of the division.

PROCEDURE

The project was approved for the period from September 1, 1976 to December 31, 1976. However, it was found that additional time was needed, and an extension was granted to March 1, 1977. No additional cost resulted.

Review of the Literature

Initally, materials including textbooks and periodicals were reviewed

to clarify the purposes of exploratory courses in the junior high and middle school. It was confirmed that a central purpose of these courses was to provide try-out experiences to enable students to make better vocational or occupationally related decisions concerning program selection and so forth.

ERIC Search

Concurrently, an ERIC search was done to identify contemporary research which might have been reported concerning exploratory courses or programs. Several were described, however, little substantive data were collected. This search did, however, alert the staff to states which seemed to exhibit a concern for this program.

Sister States

Using Project Baseline's Volume 4 of Learning a Living Across the Nation, part 2, Virginia was compared with all others in 75 different statistical categories dealing with enrollment, expenditures, teachers, and the administration of vocational education.

Six states were found to resemble Virginia in their statistical characteristics. Those six states were, in alphabetical order; Alabama, Georgia, Kentucky, Missouri, New Jersey and Tennessee. It should be noted that most of these states are in the southern part of the country with the execption of New Jersey. In the activities which followed, particular attention was focused upon these states.

A detailed presentation of the statistical comparisons among these states appears in Appendix A.

Telephone Interviews

A comprehensive list of questions appropriate to exploratory programs was developed. From that list were selected questions to ask state directors

of vocational education which would give a general understanding of exploratory programs in each state. Included in this list of questions were those that pertained to: 1) funding of exploratory programs, 2) exemplary exploratory programs, 3) service areas with existing exploratory programs, and 4) depth of committment to the exploratory programs at the state level. Another list of questions was addressed to the state's service area supervisory personnel in exploratory programs. Contained in this list were questions which revolved around student population, objectives, the nature of the approach to exploratory education and expected outcomes of the programs. Finally, a list of questions was developed for each state's accreditation officer pertaining to teacher qualifications required of the exploratory teacher, the amount and type of credit given to students for completion of the programs, and the degree of state control over the exploratory program itself. (Telephone interview schedule appears in Appendix B.)

Each of the sister states was contacted by telephone and personal interviews were conducted using the interview schedules described. In addition, all other continental states were contacted by telephone, and information was gathered from the state division level regarding each state's exploratory program.

If answers from the chief state director of vocational education indicated the division had no orientation or exploratory program, no futher information was sought. If, on the other hand, there was such a program or an exemplary program, further information was solicited - many times from supervisory personnel.

Visitations

Several states were identified as having a program functioning which was planned, coordinated and somewhat forward-looking. Where possible such

states were visited. Conferences were held with state staff including the chief state director of vocational education. When possible actual exploratory programs were visited. States included Florida, Georgia, Kentucky, Arizona, North Carolina, Oregon, Ohio, Arkansas, California and South Carolina.

RESULTS

It was determined that many states did not have a vocational orientation and/or exploration program, even though they may have had that responsibility being met by industrial arts, for example, and were funding such a program at least in part with vocational funds. These states have an asterisk next to them in Table 2. Others noted that such courses were the responsibility of local education agencies. In both instances an "N" appears next to that state in Table 2. Noting they do not have a bonefied vocational orientation and/or exploratory program at this time.

Approximately 20% of the states did acknowledge the existance of at least a partial funded vocational exploratory program. Still others such as Georgia, Iowa, Kentucky, North Carolina and Utah described an orientation as well as an exploratory program under the direction of the Vocational Division. A vocational staff member whose responsibility lay with this program appeared in these cases. Some of these states required a teacher endorsement beyond standard certification to teach in the program.

Enrollment in such programs ranged from 50% of all students able to enroll in the program in North Carolina to 2% in Nevada. Some could not identify their student population.

The two programs of most interest to Virginia were Kentucky and North

SURVEY OF STATES

Vocational Orientation & Exploration Programs

STATE	Orientation	Exploratory	Support	Staff	Teacher	Base
AL	N	N	FS	-	-	SA
AZ	N	N	S	C	std	Cl	CL/SA
AR	Y	N	FS	Y	std	
CA	N	N	LEA	-	-	SA
CO	N	N	-	-	-	-
CT*	N	N	S LEA	-	-	SA
DE	N	N	S	Y	-	SA
DC	N	N	F	-	-	SA
FL	N	N	FS	-	-	SA
GA	Y	Y	FS	C	std	SA
ID *	N	N	-	-	-	-
IL	N	N	-	-	-	-
IN *	N	N	S LEA	-	-	SA
IA	Y	Y	F	Y	std	Cl
KS *	N	N	SF	Y	-	SA
KY	Y	Y	SF	Y	end	Cl
LA	N	N	-	-	-	-
ME *	N	N	-	-	-	-
MD *	N	N	-	-	-	-
MA	N	N	-	-	-	-
MI	N	N	-	-	-	-
MN	N	N	-	-	-	-
MS *	N	N	S	-	-	SA

STATE	Orientation	Exploratory	Support	Staff	Teacher	Base
MO	N	N	FS	-	-	SA
MT*	N	N	-	-	-	-
NB	N	N	SA LEA	-	-	SA
NV	Y	N	FS	-	-	CL/SA
NH	N	N	-	-	-	-
NJ	Y	N	FS	Y	std	Cl
NM	N	N	LEA	-	-	SA
NY*	N	N	-	-	-	SA
NC	Y	Y	S	Y	end	Cl
ND*	N	N	FS	-	-	-
OH	Y	N	FS	Y	end	Cl
OK	N	N	-	-	-	-
OR*	N	N	FS	-	-	-
PA	N	N	-	-	-	-
RI	N	N	-	-	-	-
SC	N	N	FS	-	-	SA
SD	N	N	-	-	-	-
TN	N	N	S LEA	-	-	SA
TX	Y	N	-	-	-	-
UT	Y	FS	FS	Y	std	Cl
VT	N	N	-	-	-	-
WA	N	FS	-	-	-	SA
WV*	N	S LEA	-	-	-	SA
WI	N	FS	-	-	-	SA
WY	N	N	-	-	-	-

Carolina - both contiguous to the Commonwealth itself. Both have orientational courses which are cognative based and which can be taught just as readily at the end of exploration as prior to it. Both demand an endorsement of regularly certified teachers to teach the vocational exploratory package and both have generated software for teacher and student use. Both also have a person at the supervisory level within the Division of Vocational Education who bear the responsibility for the program itself. State funds have provided the springboard for progress in this program in both Kentucky and North Carolina. Neither Kentucky nor North Carolina has retained the service areas as they have been known in their programs. Kentucky has organized 14 cluster courses while North Carolina had clustered the 15 USOE groups into four units containing several each.

Summary

In short, the results indicated that:

1. Only 20% of the states were able to acknowledge that they had exemplary exploratory programs or established exploratory vocational programs identified as such which were developed to meet objectives generated by the vocational divisions.

2. The majority (roughly 80%) of Vocational Divisions acknowledging available vocational courses rely upon each service area to generate their own exploratory courses, funded or not. There was no correlation of objectives between service areas and no planned exploratory course articulation within the entire program as a whole.

3. The majority (82%) of states have no orientation program. Only a few (15%) states have a broad-based orientational experience meant to alert students to occupations in general and to the service areas in particular. Approximately 25% of the states named Industrial Arts as serving this purpose.

4. Where they did exist, vocational exploratory courses were "hands-on" oriented and related to specific vocations. The specific activities tended to represent the particular subject or service area, with no apparent attempt to relate them to a developmental sequence or larger philosophy.

5. The majority (80%) of exploratory programs were subject matter based and the individual school systems frequently offered only those courses of local interest vocational or not.

6. Several states based their vocational exploratory courses upon the 15 USOE clusters, notably Ohio, North Carolina and Kentucky.

7. In only 15% of the states did the administrative organization of the Vocational Division reflect a real concern for the exploratory program by identifying a staff person or function for the exploratory program.

8. In only 10% of the cases is teacher endorsement to instruct the vocational exploratory programs required.

"Sister States": Within the six "sister states" cited earlier, two were undergoing reorganization at the state level. This precluded the development of an exploratory program. Two other states relied on their local education agencies to implement exploratory programs. Only two of the sister states, Kentucky and Georgia, had developed orientation and exploratory programs through their vocational divisions. These states were visited to further evaluate such programs.

CONCLUSIONS

Based upon the findings, the following seems to be apparent.

1. Most states are still focusing upon their pre-1972 responsibilities in vocational education. There appears to be little concern at this time

with the exploratory and/or orientational aspects of the pre-vocational program. Those subjects historically meeting this responsibility have continued to do so.

2. Most progress in the exploratory program area has resulted where states have identified a staff member to bear the responsibility for the implementation and development of the program, designed and field tested a comprehensive package and required an endorsement of teachers to instruct the program.

RECOMMENDATIONS

1. A policy statement concerning the exploratory program be drawn. Support for such a policy should be as broad based as possible; perhaps enough to elicit legislative commitment for developmental support, but at least to act as a guide for service area supervisors.

2. A staff position bear the sole responsibility for the exploratory program. This person should have continual input from service area representatives and be at the supervisory level.

3. Develop a comprehensive, internally consistant, flexible exploratory program articulated with the occupational orientation and information course, Careers and You, with the secondary vocational preparatory programs, and within itself i.e. between the individual courses and among service areas.

This should be done in three phases.

Phase I: Superimposing the conceptual framework of Careers and You upon seventh grade exploratory courses now offered. This should be done immediately.

The integrity of service areas will be maintained initially. Evaluation

plans should be generated with which to gather base-line data with which to eventually measure progress and effectiveness of the exploratory program.

Phase II: Based upon evaluative data, the scope and sequence of the exploratory program should be designed, cost analysis completed and time lines completed.

Phase III: Exploratory package support systems should be completed and in place: teacher endorsement procedures, funding criteria, supervisory guidelines and so forth.

The specifics of the response received from various state department personnel and summarized in Table 1 should be considered merely indicative of what various states are doing with respect to their exploratory programs.

As had been pointed out many rely upon the LEA to generate such a program and seem satisfied with this approach. Vibrant, new ideas are therefore left to subject areas with the result that subject matter takes precedence over the occupational guidance function in many instances.

The study has, however, identified several states which have moved ahead in the design, development and placement of a broad based program together with key ingredients which seem to have been supportive of their effort. Virginia seems to be in an excellent position to develop what could be a model orientation/exploratory program. If done with proper deliberation and evaluation design so that its effectiveness may be ascertained, the results could be gratifying for vocational education.

Appendix A

Statistical Comparisons - Sister States

Identification of Sister States

In referring to Table 1, it should be noted that of all seven states, Virginia had the highest total enrollment in vocational education. New Jersey and Georgia were closest to Virginia in their total vocational education enrollments. More specifically, New Jersey and Georgia compared most favorably to Virginia in their total secondary enrollment as opposed to the adult program. Georgia was most similar to Virginia in the vocational enrollment per 1,000 of population. As to secondary enrollment as a percent of population 15 to 19 years old and secondary enrollment as a percent of secondary public school enrollment, Georgia closely resembled Virginia.

Table 1

States	Total Enrollment	Total Secondary Enrollment	Voc. Ed. Enrollment per 1,000 of population	Secondary enrollment as % of pop. 15-19 yrs. old	Secondary Voc. Ed. enroll. as % of Second. Pub. Sch. enr.
Alabama	235,588	127,637	65.57	35.85	49.96
Georgia	379,858	253,562	78.53	54.65	73.88
Kentucky	194,123	119,260	57.53	35.71	NA
Missouri	179,643	135,063	37.61	14.57	41.76
New Jersey	399,185	270,822	53.87	42.99	60,93
Tennessee	181,168	104,438	43.35	26.04	39.52
Virginia	400,760	246,008	82.58	53.36	79.69

In specific occupations or service areas none of the states were very closely related to Virginia. Table 2 indicates that Alabama was similar in the percentage of students enrolled in health. Tennessee and Virginia were most similar in comsumer and home economics, and in occupational home economics, and trade and industrial education. Missouri was closely related. In office and technical occupations Virginia and Georgia resembled each other.

Table 2

ercentage of vocational education by occupational area

	Agriculture	D.E.	Health	Consumer & Homemakng	occup. home eco	office	Technical	Trade & Ind.
abama	12.69	5.10	1.75	31.09	2.22	9.58	0.28	26.35
orgia	13.79	3.85	2.93	21.92	5.30	23.41	1.73	15.55
ntucky	11.24	5.87	2.66	33.20	1.65	13.49	0.59	16.31
ssouri	12.67	7.35	4.48	38.35	1.04	14.01	2.09	18.83
w Jersey	0.72	3.52	3.17	32.14	1.58	31.26	3.95	15.71
nnessee	11.62	6.28	3.84	26.71	1.65	13.57	3.22	28.50
rginia	8.16	12.35	1.75	25.07	0.91	23.67	1.58	18.90

In terms of special programs Kentucky and New Jersey were most similar in the overall number of vocational education students in special programs but none of the states were very similar in these enrollments at the secondary level. (Table 3). The diversity in enrollment was somewhat less notable in handicapped vocational education students, Virginia by the way being the state with the largest number enrolled. Although the number of handicapped students enrolled was not similar, the enrollment of handicapped as a

percentage of total vocational education was comparable in Alabama, Tennessee and Virginia. Tennessee and Kentucky showed a similarity to Virginia in the number of disadvantaged students enrolled also; however as a percentage of total enrollment, Alabama, Missouri, and New Jersey were about the same.

Table 3

	Voc. Ed. students in spec. prog.	Secondary voc. ed. students in spec. prog.	disadvantaged voc. ed. enrollment	percent of disadv.	handicapped voc. ed. enrollment	percent of handicapped
labama	25,770	25,199	20,064	8.52	6,156	2.61
eorgia	43,831	43,831	10,397	2.74	3,058	0.81
entucky	29,090	17,343	32,178	16.58	3,602	1.86
issouri	2,118	1,693	13,667	7.61	5,403	3.01
ew Jersey	34,480	33,591	28,028	7.02	7,844	1.97
nnessee	8,673	6,161	30,012	16.57	4,675	2.58
irginia	30,480	8,871	31,623	7.89	10,127	2.53

In secondary and post-secondary vocational education enrollment combined, Georgia most closely resembled Virginia with approximately 270,000 students. Georgia had less than 280,000. Table 4 also shows a similarity in the work study enrollment as a percent of secondary and post-secondary enrollment. Tennessee compared favorably in work study enrollment and coop enrollment as a percent of secondary and post-secondary enrollment and of the total coop enrollment. (Refer to table 4).

Table 4

	Secondary & post-second. voc. ed. enrollment	total coop voc. ed. enrollment	coop enroll. as % of second. & post-second. enrollment	work/study enrollment	W/S enrollment as % of second. & post-second, enrollment
Alabama	152,641	12,147	7.96	912	0.60
Georgia	278,452	24,506	8.80	1,069	0.38
Kentucky	133,098	6,880	5.17	898	0.67
Missouri	149,319	11,529	7.72	944	0.63
New Jersey	301,560	15,577	5.17	2,720	0.90
Tennessee	127,582	8,160	6.40	1,127	0.88
Virginia	269,432	17,541	6.51	1,273	0.47

Cooperative enrollment was further broken down into occupational areas. (See table 5). In Cooperative Agriculture, Alabama resembled Virginia in its total enrollment; Georgia, in the percentage of total coop enrollment. Again the numbers of students enrolled in Occupational Home Economics were similar between Alabama and Virginia, but as a percentage of total coop enrollment Missouri compared most favorably with Virginia. (There were no enrollments in Consumer Homemaking in Alabama, Georgia, Tennessee or Virginia.) Of the six sister states, Missouri was most similar in the enrollment in cooperative distributive education and as a percent of total coop enrollment. Alabama, Georgia and Virginia apparently had no cooperative technical program a the percent of total coop enrollment indicated zero. New Jersey showed the most favorable comparison in enrollment in coop health occupations.

Table 5

	Coop Agriculture	percent of total	Occup. Home Eco	percent of total	Consumer Homemaking	percent of total	Coop D. E.	percent of total
Alabama	1,230	10.13	259	2.13	0	0.00	4,047	33.32
Georgia	1,906	7.78	882	3.60	0	0.00	4,863	19.84
Kentucky	2,331	33.88	0	0.00	43	0.63	1,688	24.53
Missouri	551	4.78	158	1.37	371	3.22	5,263	45.65
New Jersey	293	1.88	947	6.08	68	0.44	4,844	31.10
Tennessee	155	1.90	178	2.18	0	0.00	4,722	57.87
Virginia	1,141	6.50	291	1.66	0	0.00	8,058	45.94

	Coop Health	percent of total	Coop Office	percent of total	Coop Tech.	percent of total	Coop Trade & Ind.	percent of total	Other	percent of total
Alabama	580	4.77	1,630	13.42	0	0.00	3,302	27.18	1,099	9.05
Georgia	3	0.01	4,531	18.49	0	0.00	5,252	21.43	7,069	28.85
Kentucky	17	0.25	1,555	22.60	92	1.34	1,154	16.77	0	0.00
Missouri	587	5.09	1,780	15.44	171	1.48	2,471	21.43	177	1.54
New Jersey	432	2.77	4,174	26.80	9	0.06	4,753	30.51	57	0.37
Tennessee	157	1.92	432	5.29	4	0.05	2,297	28.15	215	2.63
Virginia	319	1.82	3,284	18.72	0	0.00	4,448	25.36	0	0.00

Although Tennessee's enrollment in coop health was much lower than Virginia's, the figures were similar as a percentage of total coop enrollment. In cooperative office enrollment, enrollments ranged from 432 in Tennessee to 4,531 in Georgia; and, as a percentage of total cooperative enrollment, Georgia showed the closest figure. The enrollments in cooperative trade and industrial education were not as diverse as that of technical education.

New Jersey had an enrollment nearest that of Virginia's, but was greater than Virginia's as a percent of total enrollment. There was no enrollment in other occupational areas in either Virginia or Kentucky.

Data was also available concerning the program completion and employment status of students in vocational education. (Refer to table 6). With the execption of Alabama and Tennessee, all the states showed a fairly comparable number of students who completed vocational education programs. Again, with the exception of Missouri and Tennessee these states showed approximately the same number of students whose status were "unkown." Kentucky was most similar to Virginia in the number of students not available for placement at the time of the study. The number that were available for placement were very similar in Georgia and Virginia and the number unemployed were similar in Georgia, Kentucky, New Jersey, and Tennessee. Students with marketable skills that were employed in their field of training were similar in frequency in Alabama, Missouri and Virginia, the figure being between 8,000 and 9,000. Georgia, Kentucky, Tennessee and Virginia had about the same number of students who were fortunate enough to be employed, but not fortunate to be employed in their field of training. The number employed as a percent of those available for employment were most similar in Kentucky and Virginia.

Table 6

	Completions	Status Unknown	Not avail. for placement	Avail. for Placement	Employed in field of traing.	Unemployed	Employed outside field	# employed as % of # avail. for employment
bama	19,442	1,840	6,091	11,511	8,926	842	1,743	92.69
rgia	25,958	3,057	8,996	13,905	9,357	1,389	3,159	90.01
tucky	21,006	2,493	7,375	11,138	6,811	1,266	3,061	88.63
souri	26,463	714	11,033	14,716	8,152	393	6,171	97.33
Jersey	40,173	2,838	9,717	27,618	21,335	1,761	4,522	93.62
nessee	25,514	7,605	5,917	11,992	7,489	1,157	3,346	90.35
ginia	23,315	2,110	7,272	13,933	8,738	2,679	2,516	80.77

Expenditures were broken up into federal, state and local. The states most similar to Virginia in total expenditures were Georgia and Missouri. More specifically, total federal expenditures were most similar in Georgia, New Jersey and Virginia. Georgia was the only state that resembled Virginia in its total state/local expenditures. On the secondary level alone, federal, state and local expenditures compared favorably in Missouri and Virginia. Also, federal, state and local expenditures as a percent of total expenditures were similar in both Missouri and Virginia. Federal expenditures on the secondary level ranged from Georgia's expenditure of more than $2 million to New Jersey which spent in excess of $9 million. As a percent of total expenditures, federal expenditures on the secondary level in Missouri and Virginia amounted to slightly over half the total cost of vocational education. State and local expenditures on the secondary level were just slightly higher in Missouri than in Virginia. As a percent of total expenditures, state and local expenditures in Missouri, New Jersey and Virginia were slightly over 80%. (See Table 7 on next page.)

On a per student basis, Georgia and Virginia spent approximately the same amount in vocational education. On a per secondary student basis, Georgia was well below the $180.89 that Virginia spent, but Alabama and Kentucky were most similar. On the federal level, per student expenditures were most similar in Kentucky, New Jersey and Virginia. (See Table 8 on next page.)

Funds expended for disadvantaged students in all seven states ranged from $2,452,120 in Georgia to $8,824,000 in New Jersey. As a percent of total vocational education expenditures, Tennessee and Virginia both spent approximately 8% on their students.

Chart 7

	Total Expenditures	Total Federal Expenditures	Total St./Local Expenditures	Secondary Fed/State/ Local Expenditures	% of Total	Federal Expend. (Second.)	% of Total	St./Local Expend. (Second.)	% of Total	Total Expend. per stu.	Total Second. Expend. per stu.	Federal Expend. per stu.
Alabama	44,728,987	11,335,547	33,393,440	23,267,226	52.02	6,402,371	56.48	16,864,855	50.50	189.86	182.29	50.16
Georgia	58,045,128	14,240,546	43,804,582	28,397,519	48.92	2,962,541	20.80	25,434,978	58.06	152.81	111.99	11.68
Kentucky	39,814,715	13,149,693	26,665,022	22,190,425	55.73	3,761,324	28.60	18,429,101	69.11	205.10	186.07	31.54
Missouri	56,689,998	11,504,329	45,185,669	43,066,937	75.97	5,951,150	51.73	37,115,787	82.14	315.57	318.87	44.06
New Jersey	67,761,475	14,478,872	53,282,603	53,148,551	78.43	9,008,950	62.22	44,139,601	82.84	169.75	196.25	33.27
Tennessee	59,126,298	13,305,398	45,820,900	33,819,326	57.20	3,107,936	23.36	30,711,390	67.02	326.36	323.82	29.76
Virginia	57,826,100	14,921,779	42,904,321	44,499,891	76.95	7,614,047	51.03	36,885,844	85.97	144.29	180.89	30.95

Chart 8

	EXPENDITURES					
	Total exp. for disadv. voc. ed. students	expend. as % of total voc. ed.	Total exp. for handicapp[illegible] voc. ed. student	expend. as % of total voc. ed.	expend. for guid. & couns,	expend. as % of total voc. ed.
Alabama	3,247,434	7.26	1,924,511	4.30	26,823	0.06
Georgia	2,452,120	4.22	1,026,773	1.77	659,426	1.14
Kentucky	2,475,769	6.22	1,338,749	3.36	205,397	0.52
Missouri	2,892,653	5.10	1,486,243	2.62	9,928,070	17.51
New Jersey	8,824,008	13.02	2,849,027	4.20	2,748,988	4.06
Tennessee	5,285,621	8.94	1,684,330	2.85	516,600	0.87
Virginia	4,671,113	8.08	2,437,808	4.22	177,310	0.31

New Jersey was most similar to Virginia in their expenditures for handicapped students. As a percent of total vocational education, New Jersey also compared well. Although Alabama spent much less on its handicapped students the overall percent of total vocational education was similar to that of Virginia's. As for expenditures for guidance and counseling, Virginia was one of the lowest spending: $177,310.00. Kentucky had the next closest figure. These two states also compared favorably in their expenditures as a percent to total vocational education expenditures.

In referring to Table 9, the reader will note that the figures for total ancillary services varied greatly between states. Kentucky and New Jersey resembled Virginia. Kentucky was also the only state whose expenditures for Administration Supervision and evaluation compared closely with Virginia. Kentucky, New Jersey and Virginia all expended approximately 70% of their total ancillary funds in this area. New Jersey and Virginia spent more than any of the states on teacher education. Although Alabama ranked very low in expenditures for teacher education, their expenditures as a percentage of total ancillary expenditures surpassed the other six states. In research and administration, New Jersey, Kentucky, and Virginai expended nearly the same amount. They were also similar in the percentage of funds spent for this purpose. There was a vast difference in the amount of monies spent as curriculum development (ranging from 0 in Georgia to $477,502 in Missouri). Virginia and Alabama spent $54,901 and $56,521 respectively for this purpose. (See Table 9 on next page.)

In part C expenditures on Table 9, the overall totals were not extremely diverse, however as compared to the other states, Virginia expended the least amount - Virginia also proved to have had one of the lowest amounts in carryover, New Jersey being the only state with a lower figure. In grants

Table 9

	Total Ancillary Services	Admin. Supervision & Eval.	Percent of total	Teacher Education	Percent of total	Research & Admin.	Percent of total	Curric. Devel.	Percent of total
ıbama	1,829,292	1,082,276	59.16	569,183	31.11	121,312	6.63	56,521	3.09
›rgia	8,664,767	8,202,608	94.67	376,173	4.34	85,986	0.99	0	0.00
ıtucky	5,025,316	3,870,094	77.01	746,435	14.85	238,824	4.75	169,963	3.38
;souri	4,603,853	2,759,029	59.93	740,548	16.09	626,774	13.61	477,502	10.37
' Jersey	5,580,895	4,093,493	73.35	1,106,061	19.82	253,241	4.54	128,100	2.30
ınessee	9,906,447	8,597,657	86.79	718,817	7.26	391,660	3.95	198,313	2.00
'ginia	5,338,185	3,767,888	70.58	1,256,004	23.53	259,392	4.86	54,901	1.03

PART C EXPENDITURES

	Total Expend.	Carryover	Grants & RCU Expend.	Federal Alloc.	Federal Expend.	State/ Local Expend.	Federal unpaid oblig.	State/ Local Unpaid Oblig.	Unoblig. balance of alloc
ıbama	309,645	184,585	125,060	184,631	40,453	84,607	0	0	144,178
›rgia	219,061	79,365	72,133	236,873	15,748	56,385	30,000	0	191,125
ıtucky	247,631	71,072	170,354	172,957	130,018	40,336	0	0	42,939
;souri	424,558	130,016	294,542	209,167	195,524	99,018	0	0	13,643
' Jersey	245,353	5,634	239,719	246,854	162,505	77,214	0	0	84,349
ınessee	420,848	116,560	304,288	208,171	208,171	96,117	0	0	0
'ginia	150,272	43,799	106,473	227,757	84,785	21,688	0	0	142,972

and RCU expenditures, Virginia and Alabama were very similar. There was not a great diversity in the amount of federal allocation to the states, however Georgia's came closest to Virginia's. In federal expenditures there was a greater difference in figures than in federal allocation. None of the states were very similar to Virginia in this category no in the category of state/local expenditures. In unpaid obligations to the federal government, Georgia was the only state in debt. The other six states owed nothing. On the other hand, none of the states had any unpaid obligations to state/local government. Alabama showed a similar figure to Virginia in the allocations that were left unobligated. Tennessee was the only state with no balance of unobligated funds.

It was interesting to note that New Jersey had nearly the same number of vocational teachers as Virginia. (Refer to Table 10.) Virginia also showed the second highest number of full-time enrollment teachers on the secondary level, second only to New Jersey. Missouri was most similar to Virginia in pre-service and in-service enrollment.

Table 10

	Total # of voc. teachers	Secondary F. T. E. Teachers	pre-service enrollees	in-service enrollees
Alabama	2,809	1,913	1,450	1,000
Georgia	6,432	2,909	642	1,508
Kentucky	3,680	1,995	1,725	1,941
Missouri	5,054	2,798	2,217	2,561
New Jersey	7,361	5,791	1,578	1,044
Tenneessee	4,114	1,845	1,069	1,407
Virginia	7,277	4,081	2,304	2,430

Appendix B

Level I - State Supervisors

Level II - Service Area Directors

Level III - State Accreditation Officers

LEVEL I TELEPHONE FORM - STATE SUPERVISORS

State:

Respondent:

Title:

Phone:

1. Does the State Department of Education accept any one Industrial Arts or Vocational Education course as providing comprehensive vocational orientation?
2. Is this orientation course structured around:
   1) a U.S.O.E. clusters approach? (Public Service, Homemaker & Consumer)
   2) the program service areas? (Distributive Ed., Home Economics, T&I)
   3) industrial job classification? (Drafting, Electrical, Supervisor)
3. Are any pre-vocational exploration courses offered in the state?
4. Which program service areas offer exploratory courses?
   a. Agricultural Education
   b. Distributive Education
   c. Home Economics
   d. Industrial Arts
   e. Trade and Industrial Education
   f. Business Education
5. Does the state provide criteria by which local school systems may develop their own exploratory courses? If so, what are those criteria?
6. What common goals are shared by all exploratory courses?
7. Are there any exploratory courses in your state that you condider to be outstanding?
   1) What
      Who
   2) What
      Who
   3) What
      Who
8. Are your exploratory courses eligible for Federal Vocational funds?
9. Are these Federal funds utilized for exploratory courses?

Will you be going to the Career Education Conference (U.S.O.E.) in Houston? Whil you be sending anyone?

May we follow up with a personal interview? We will notify you as to the date.

Can a secretary provide the following information?
1) Who are the Directors of the vocational services areas? Phone?

2) What are the addresses and phone numbers of the following program leaders? (See 6 above)

LEVEL II TELEPHONE FORM - SERVICE AREA DIRECTORS

State:

Respondent:

Title:

Phone:

1. What is the approximate size of enrollment in your program area?
2. How much of that enrollment is involved in Junior High exploration programs?
3. What are the objectives of your exploratory programs?
4. What types of learning experiences are provided to fulfill the objectives?
5. Are the resulting learnings primarily cognitive, psychomotor or affective in nature?
6. To what extent are guidance and counseling personnel incorporated into your exploratory experiences?
7. Are there any extra-curricular exploratory activities associated with or provided for in your exploratory programs?
   a. Cooperative programs
   b. Student Clubs
   c. Other
8. Is there any special preparation required of teachers of exploratory courses?
   a. College preparation
   b. In-service training
   c. State-wide conferences
   d. Is special certification required?
9. What is the extent of state education agency participation in the identification and administration of explora ory courses?
10. What is the extent of local education agency participation in the identification and administrtion of exploratory courses?
11. What is the involvement at the private sector at every level in exploratory courses?
12. What is the historical devlopment of exploratory courses in your state?
13. Are any of your exploratory programs Federally fundable?
14. What benfits do you perceive students having as a result of exploratory courses?

TELEPHONE FORM FOR STATE ACCREDITATION OFFICERS

State:

Respondent:

Title:

Phone:

1. Could you send me a list of those courses in your state that are identified as being vocationally exploratory?

2. Do all exploratory courses require approval by the state board of education?

3. Is special certification required for teachers of exploratory programs?

4. Are any exploratory courses required of students for graduation? (If not required, is credit given?)

5. How many exploratory courses do most students have?

6. What are they?

7. Is there any difference in the number or kind of exploratory courses offered to students in urban or rural systems?